



## SEQUENCE LISTING

<110> Adam, Gail Isabel Reid  
Langdown, Maria L.  
Denissenko, Mikhaili F.  
Dennis, Edward  
Cantor, Charles  
Rubin, Byron

<120> THERAPEUTIC METHODS FOR REDUCING FAT  
DEPOSITION AND TREATING ASSOCIATED CONDITIONS

<130> 524592003200

<140> 10/607,806

<141> 2003-06-27

<150> 60/392,362

<151> 2002-06-27

<160> 78

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 12174

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 436

<223> y = C or T

<221> misc\_feature

<222> (4050)...(4050)

<223> m = A or C

<221> misc\_feature

<222> 4689

<223> w = A or T

<221> misc\_feature

<222> 6282

<223> m = A or C

<221> misc\_feature

<222> 6358

<223> y = C or T

<221> misc\_feature

<222> 7256

<223> y = C or T

<221> misc\_feature

<222> 7300

<223> m = A or C

<221> misc\_feature

<222> (7301)...(7301)

<223> m = A or C

```

<221> misc_feature
<222> (7328)...(7328)
<223> r = A or G

<221> misc_feature
<222> (8062)...(8062)
<223> y = C or T

<221> misc_feature
<222> (9182)...(9182)
<223> k = G or T

<221> misc_feature
<222> (11649)...(11649)
<223> m = A or C

```

```

<400> 1
gacctacctc gacctttgtg ccagggttctt agcatatggg acctgggatg gagtttagcgc 60
tcagttaata gtaactcatt agccagggtgc ggtggctcat gtctgtattc ccagcacttt 120
gggagaccga gttgggtgga tcaacttgaga gcaggagttt gagaccagcc tggccaacat 180
ggcaaaacac tatctctaataaaaaatacaa aaattagcca ggtgtggtgg cacttgcccta 240
tagtcccagc tacacaggag gctggggcag aagaatcact tgaacctggg aggtggaggt 300
tgcagtggag caagattgca ccactgcact ccagcctgga aaaaaagggg aattaataac 360
tttacttgca accatagctg cttctccttc tttgagccac cccaatcac ccacttagca 420
tccttcaggc ctaaayctag gagcagtgcc tggtcctctg tcttgttatg accccaagga 480
accacataa gagggactga acatthttgct gggcaaggct tccctttgct tgggcagact 540
ccactcattc tggggctgca gaggcaggac cattcagtca agctgatgtg ggattctgac 600
ctaaccaagt cccctccat tagtcctcat agccccacc tcccatgggg cagccctgag 660
acaggctctg tgacaatcca cagcagccct gtccaacaga accttctgtg atcatggaaa 720
cattctgtgg ctgccaatct ggcagccact cgccacatgt gtctatgagc cttgaaatgt 780
ggccattgtg actgagaaac tgaactttta atgggtatttc atttttatth ttattttttt 840
tttattttatt ttgaggcaga gtctcactct gtcacccggg ctggagtgca gtggcactcg 900
gctcactgca agctccgct cccgggttca cgccattctc ctgcctcagc ctcgggagta 960
cctgggacaa caggcaccgc ccaccacgcc cggttaattt tttgtatttt tagtagagat 1020
gggggtttcac catggtctcg atctcctgac ctgaggtgat ccaccgcctt cggcctcccg 1080
aagtgtgtgg actgcaggca tgagccacca cgcccgccc agaaaagaga tgattaaaca 1140
taaagcagcc atgtgatgaa atggcacttt gcctctgtgg tcttcctccc ccaaaccat 1200
aactgtaatc taattatgag aaaaacacag gacaattcca atagagagcc aggtgcagtg 1260
gttcacgcct gtaatccag cactttggga ggctgaggcg ggcagatcat gaggtcaaga 1320
aatcaagacc atcctggcca acatggtgaa acccgcctc tactaaaaat acaaaaatta 1380
gctggacgca gtggtgtgca cctgtagtcc cagctactcg ggaggctgag gcaggagaat 1440
catttgaacc cgggaggcag aggttgcagt gagctgagat cgcgccactg cactccagcc 1500
tggtgacaga gtgagactcc gtctcaaaaa taaataaaaa taaataaata aaaattagct 1560
gggcgtggtg gcacgtgcct gtaatccag ctactcagag gctgaggcac aagaatcact 1620
tgaacctggg agacagagat tgcagtgagc cgagattgtg ccactgcact ccagcctggg 1680
cgacagagtg agactacaac aaacacacac acacacaccc acacacacac acacacaaat 1740
tccaagagag ggtcatcctg accaatactc ctcaaaacta tcaagggttg tgggcacagt 1800
ggctcacgcc tgtgatccca atgctttggg aggttagat gggaggatca cttgaggcca 1860
ggagttcaag accagcctgg gcaacatagg gagacgccgt gtctccaaaa atttttttga 1920
gacagagtct cgctgtgtcg cccaggcccg agtacagtgg cgtgatctcg gctcactgca 1980
aactctgcct cctgggttca cgccattctt ctgcctcagc ctcccaagtt gctgagatta 2040
caggcaccgc ccaccatgcc cagcttattt tttgtatctt tagtagagac aagggtttcac 2100
tgtgttagcc aggatggtct ccacacctg acctcgtgat ccgcctgcct cggctccccc 2160
aagtgtggg attacaggta tgagccaccg tgccctggccc aaaaaatttt tttaaattag 2220
ccagggtgtg tgacacatgt ctgtagtccc cactaatcgg gaggttaagg tgggaggatt 2280
gcttgagccc aggaggttga ggctgcagt aactatgac gtgtcactgc acatcagtct 2340
gggaaacaga ggcacacttt gtctcaaaaa aaaaaaacag ataaataaat taaataacca 2400
ggcctcctt atcccacagg gttgtttag aggtgacata ggaacagaag agcaccaagt 2460
taaccaatta taaatctata tagagagaag cagatcagag gccaggcaca gtggctcatg 2520
cctataatcc cagcattttg ggaggctgag gagtggatca cctgaggtca agagtttgag 2580
accagcctga ccaacatggt gaaaccttgt ctctactaaa aatacaaaaa ttatccaggc 2640
atgctggcag gcgcctgtaa ttcccagcta cagcagaggc tgaggcagga gaatcgcttg 2700
aacctgggag gcggagggtg cagtaagccg agatcgtgcc attgcactcc agcctggggc 2760

```

|             |            |             |             |             |             |      |
|-------------|------------|-------------|-------------|-------------|-------------|------|
| acaagagcga  | aactctgtct | caaaaaaaaa  | agagagagag  | agagagaagc  | agatttagcag | 2820 |
| ttaccagggg  | ctgagggagt | gtgactgcta  | atgggtacag  | ggtttccttc  | tggagtgata  | 2880 |
| aaaatgttct  | ggaaccccat | agaggtgatg  | gttgccacaac | actgtgaagg  | tactaaatgc  | 2940 |
| ccccgaattg  | tttacttaaa | cgtgggtaat  | gttatgtgaa  | tttcagctaa  | acaatgttat  | 3000 |
| gtagatattt  | ggccggggcg | gggtggctcac | gcctgtaatc  | ccagcatttt  | gggagggcca  | 3060 |
| ggcaggtgga  | tcacgaggtc | aggagatcga  | gaccatcctg  | gctaattgcg  | tgaaccccca  | 3120 |
| tctctactaa  | aaatacaaaa | aaaaaaatta  | accgggcgtg  | gtgggtgggtg | cctgtagtcc  | 3180 |
| cagctacttg  | ggaggctgag | gcaggagaat  | ggcatgaacc  | tgggaggcag  | agcttgagct  | 3240 |
| gagccaagat  | cgcgccattg | cactccagcc  | taggcaacag  | agcaagactc  | cgtctcaaaa  | 3300 |
| aatatatata  | aataaataga | tatgtgatgt  | gacaggtttt  | tttttgagat  | ggagttttgc  | 3360 |
| tcttgttccc  | taggctggag | tgcaatggcg  | tgatctcagc  | tcaccgcaac  | ctccgcctcc  | 3420 |
| agggttcaag  | ccattctcct | gcctcggcct  | ccggagtagc  | tgggattaca  | ggcataagcc  | 3480 |
| accatgcctg  | gctaattttg | tgtttttagt  | agagacaggg  | ttattccatg  | ttggtcaggc  | 3540 |
| tggtctcgaa  | ctctccacct | caggtgatct  | gccagcctca  | gcctcccaaa  | gtgctgggat  | 3600 |
| tacaggcatg  | agccaccgtg | cctggcctct  | gatatgacag  | ttctaattgcc | ctttagtatt  | 3660 |
| ctataattca  | gactcaggcc | tttggaatcc  | aaagcccagg  | ttttctcac   | aaacccacac  | 3720 |
| tgcatagcgg  | agtgggtgaa | aaaaataaaa  | cctctgcctt  | ggaatcagac  | agatctaaac  | 3780 |
| tggagcccta  | ttttgtcatt | tgccaactgt  | gtgaccttgg  | gcaagttacc  | gcaactctct  | 3840 |
| gaacctgtct  | ctttatctgc | aaggtgcacg  | actgatggga  | ctattcaacc  | agacccagtg  | 3900 |
| cacagattca  | ggcacttgat | aagacattga  | ggctgcaggc  | agcgatcttt  | tttctttctt  | 3960 |
| tctttttttt  | tttttttttt | tgaaataggg  | tctcactctg  | ctgcagaggc  | tcaatcactg  | 4020 |
| ttcattgcag  | ccttgacctc | cctgggtcam  | gagatcctcc  | catctcagcc  | tcctgagttg  | 4080 |
| ctgggatcac  | aggtgcaatc | caccaccaca  | cctggttaac  | attttttttt  | ttagagatga  | 4140 |
| ggtctctcta  | tggtgcccag | gctgcacttc  | cttcttgtct  | cccttatccc  | agcgtccgac  | 4200 |
| tgaactgacg  | gctttgtctt | ccccaacagg  | cccgtaagc   | tgggctgagt  | acaaagtggg  | 4260 |
| gggtatgagg  | gtcaagattg | taagatctga  | aaactccaga  | aaccatccct  | ttggttaaca  | 4320 |
| gttgctaagg  | acaaatgcat | aacatatatt  | ccagtgatcc  | catgctggca  | aatcgctcagg | 4380 |
| gtcattctctg | caacagacag | attcaaggcc  | agccccaac   | tcagccaaga  | gcaaagcaaa  | 4440 |
| cactccagcc  | ttatctgggc | agggttgtgt  | ggagactgac  | tataagacta  | tacctgagac  | 4500 |
| tggtcatctc  | agttcttttc | tcaccttgac  | tgcaagatga  | aactccttgt  | gctagctgtg  | 4560 |
| ctgctcacag  | gtaggcaagt | ctccccggct  | ccaccgcct   | ttctctccca  | agttagctaa  | 4620 |
| gatctcactc  | ctctggaatg | ggggccacag  | gccacagcaa  | acagggatgg  | ccagcccccgc | 4680 |
| agtctcaawt  | cgaggttccc | agtggggcct  | aagggtcct   | ctattggggg  | tcctcaagg   | 4740 |
| ctggcacttt  | ttcaacctgc | aagtctgaac  | tcagattgcc  | tgagctaaga  | aagcttgcat  | 4800 |
| ttattttctt  | ttttccagac | agggtcttgc  | tctatcacc   | aggctggagt  | tcagtgccat  | 4860 |
| gatcatagct  | caccacagct | tccaactcgt  | gggctcaagt  | gatcctccca  | ccttactcaa  | 4920 |
| ctaagtagtt  | aggccaatct | cccatttatt  | ttattttatt  | ttaattttta  | tttttatatt  | 4980 |
| actttatatt  | atttttgaga | cggggctcac  | tctgtcgccc  | aggctggagt  | gcgggtggcgt | 5040 |
| gatctcagat  | cactacaacc | tccatctcct  | gggttcaa    | aattctcttg  | cctcagcctc  | 5100 |
| tcaagtagct  | gggacttgta | gctctcaagt  | agctggcaca  | caccaccatg  | cccagctaat  | 5160 |
| tttttggtgtg | tttttttttg | tagagacagg  | ttttcaccat  | gttggccagg  | ctgggtgacc  | 5220 |
| tcctttttag  | attctctcca | tctgtctcta  | ttcttccct   | ttctaattga  | gtatccagtt  | 5280 |
| tccttactta  | tcacatttat | tattattctt  | attattattg  | agacagagtc  | ttgctttgtc  | 5340 |
| gccaaaggctg | gtgacagtg  | gtgcgatctc  | ggctcactgc  | aagctccacc  | tgctgggttc  | 5400 |
| acgccattct  | ccgcctcag  | cctccccagt  | agctgggact  | aaaggcgcct  | gccaccacgc  | 5460 |
| cccgctaatt  | tttttgattt | tttaataaag  | acgggggttc  | atcggtgttag | ccaggatggg  | 5520 |
| ctcgatctca  | tgaccttggt | atccgcctgc  | ctcgccctcc  | caaagtgtctg | ggattacagg  | 5580 |
| catgagccac  | cgtgcccggc | cttatcacat  | ttattattta  | ttgtttttct  | ctcccactag  | 5640 |
| gttgtaagct  | ccatgaggtt | agagattatt  | attattatta  | ttattattat  | tattattatt  | 5700 |
| attattatta  | tatctgttca | ctgctgtatc  | tctagctcct  | aggacagagc  | ctggcacata  | 5760 |
| gtaagtgtct  | aataaatatt | cactggataa  | acagtgca    | tagtttaaaa  | ctatctgacc  | 5820 |
| tagggaggct  | gaggcaggag | aatggcgtga  | acccgggaag  | cagagtttgc  | agttagctga  | 5880 |
| aatcggtgtca | ctgcactcca | acctgggcaa  | cagagcaaga  | ctccatctca  | aaaaaaaaaa  | 5940 |
| aaaaactatc  | aggcctagct | gggtggcaca  | tgctgtaat   | cctagctgag  | gcggtagggg  | 6000 |
| cccagaagaa  | gaagaagaag | aaaaagaaga  | agatatatat  | atatatacac  | acacacaaag  | 6060 |
| atataaactt  | tatatatata | aagttttcat  | taaaaaaaaa  | aaaaaacctc  | taccactttt  | 6120 |
| cactttacca  | ggttcctggg | tccaacggct  | ttcagaggag  | gcagctggca  | ggggtcaggg  | 6180 |
| aggcagcgtg  | ggacccgagg | gagcaggaag  | gcagtgtgtc  | ccgggggtgc  | tggcagaccg  | 6240 |
| atttgaactc  | tggttatgtc | ttcttgagct  | ggccgcgcgc  | gmcagcggca  | tcagccctcg  | 6300 |
| ggcgtgtggt  | cagttccgca | aatgatcaa   | gtgctgtatc  | ccggggagtg  | accccttytt  | 6360 |
| ggaatacaac  | aactcaggct | gctactgtgg  | cttggggggc  | tcaggcacc   | ccgtgggtga  | 6420 |
| actggacaag  | taagtgtacc | gcctgcagga  | aaattggagt  | gcctgccggg  | ggcgggggtg  | 6480 |
| ggcacacgcc  | aaggatctca | cgaggcatac  | aaaggggact  | tgcatatctg  | ctaaggataa  | 6540 |
| catattttca  | cctcttgtca | aataaaca    | tatgttccaa  | gaggaccctg  | tagcgaacgc  | 6600 |

|             |             |             |             |             |             |       |
|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| aeccccgttag | agatggaaac  | aatgaccgac  | gtgcaaaaaca | gtgggcgatg  | ctgccctcca  | 6660  |
| gtggcagaat  | gtagcaacag  | taaacatcac  | agcaactatc  | cacgtgtcat  | tttctagcag  | 6720  |
| tgggtgtcac  | tgcaccttct  | gaatacagga  | ttttactgta  | ttcttgcaac  | catgttaaaa  | 6780  |
| atcgctttca  | ggccaggcgc  | ggtggctcat  | gcctgtaatc  | ccagcacttt  | gggaggccga  | 6840  |
| ggcgggcgga  | tcacttgagg  | tcaggagttc  | gagaccagcc  | tggccaacat  | ggtgaaaccc  | 6900  |
| tgtctctact  | aaaaaatata  | aaaattagcc  | ggacatggtg  | gcgagcgcct  | gtaaccccag  | 6960  |
| ctacttggga  | gactgagttg  | gaggtttcag  | tgagccaagg  | tcgtgtcact  | gctgtccagc  | 7020  |
| ctgggtaaca  | gagcaactct  | gtctcaaaaa  | aaaaaaatgc  | tttcaataaa  | tatatgataa  | 7080  |
| aaggacttat  | atTTTTTcaa  | gccataggat  | cattttctct  | gaagcatctt  | ggcgaagtca  | 7140  |
| tccccacctg  | ttcctgagag  | tgggcagggtg | agggctgacc  | tattgctctg  | cacttactcc  | 7200  |
| tatctcagct  | gtccctccca  | ctttccagggt | gctgccagac  | acatgacaac  | tgctaygacc  | 7260  |
| aggccaagaa  | gctggacagc  | tgtaaatttc  | tgctggacam  | mccgtacacc  | cacacctatt  | 7320  |
| catactcrtg  | ctctggctcg  | gcaatcacct  | gtagcagtag  | gtttatccct  | tccttgacct  | 7380  |
| atgaattcta  | gttgggttctc | agtaggccgg  | ggggaaataa  | tagtaacaac  | agccatgatt  | 7440  |
| tagtgtaaat  | tttcttggtt  | ctgggcagtg  | tctcctttaa  | tcctcagaac  | aacactatgg  | 7500  |
| gataggtaca  | attatcctca  | cttaacagat  | aagaaaactg  | aggctcagaa  | ggctgagcta  | 7560  |
| tttgcccaag  | atcacacagc  | ttgtaagtg   | tgacagtttg  | ggtttttttt  | tggtgtgtgt  | 7620  |
| tagagacagg  | gtcttgctct  | gtcaccaggg  | catgagcaca  | gtggtgcaac  | catagggtcac | 7680  |
| tgcagcctca  | acctcctgag  | ctcaagggat  | ctgctgacct  | cagcctccca  | agtagctggg  | 7740  |
| actacgagcg  | tgcaccacca  | cgcttggtca  | attaaaaaaa  | tttttttgta  | gagactgggt  | 7800  |
| cttactacgt  | tggccagggt  | tgtcttaaac  | tcctggcttc  | aagcaatcct  | cctaccttgg  | 7860  |
| catcccaaag  | tgctgggatt  | acaggggtga  | gccaccatgt  | gcggctactt  | atctctttac  | 7920  |
| attccatctt  | tccaatagaa  | tgtaatatcc  | acagaacagg  | gattactgcc  | tattttcttc  | 7980  |
| cttctttttt  | tgagacagag  | tctcacttca  | tcacctcaac  | ctccgttcag  | ctcactgcaa  | 8040  |
| cctctgcctc  | ccgggttcaa  | gygattctcc  | tgctaagcc   | tcctgagtag  | ctggaattac  | 8100  |
| aagcgtgcac  | caccatgctt  | ggctaatttt  | ttgtattttt  | agcagagatg  | gggtttttacc | 8160  |
| atgttgccca  | ggctgggtctc | aaactcctga  | cctcaagtga  | tctgcctgcc  | tcagtctccc  | 8220  |
| aaagtgtctg  | aattataggc  | gtgagtcact  | gtgcctggcc  | gattactgtc  | tattttcttt  | 8280  |
| attgctatat  | ccccagatct  | agagcagtg   | ctgacatata  | gtaggtgctc  | aataaataat  | 8340  |
| tgatgaatgc  | acagcctaga  | tataaacttt  | ctttttcttt  | ttttaaaaca  | atcttgacaa  | 8400  |
| ctttgcagaa  | taaataacaat | cttgcatctt  | gctttttcac  | ttatcacctt  | gttatgactt  | 8460  |
| tttcatattg  | cctcaaacct  | ttattgttac  | tgttttttca  | ttgttactat  | tttagtcaact | 8520  |
| gaataaatag  | gcttaatttg  | cttatacatc  | ctcctgtccc  | actttagaag  | gccaaattta  | 8580  |
| caaactctgat | gaaagctatg  | aacctctccc  | ccagagaaat  | acacacacac  | acacacactc  | 8640  |
| acacacagtt  | tttttttaat  | gtttgcaact  | aagacaagaa  | acctgcatta  | gaggatgttt  | 8700  |
| gttcatatta  | attaaaaata  | actcagttgg  | gcacagtgc   | tcaagcctgt  | aaccacagta  | 8760  |
| ctttggaagt  | ccaaggtggg  | tggatcactt  | gaggtgagaa  | gttcgagacc  | agcctgggtca | 8820  |
| atatggtgaa  | accctatctc  | tactaaaaat  | acaaaaatta  | gctgggtgta  | gtgatgcatg  | 8880  |
| cctgtagtcc  | cagctactcg  | ggaggctgag  | gcaagagaat  | tgcttgaacc  | tgggaggcag  | 8940  |
| aggttgcagt  | gagccgagat  | cccaccactg  | cactccagcc  | tgggcgacac  | agcgagactc  | 9000  |
| tatctcaaaa  | aaataaataa  | ataaaataaa  | ggatcggaga  | gaaacaaaac  | taataagatt  | 9060  |
| cctgaagata  | agcagagata  | cgtaaattat  | atgtaataaa  | gtttaaatgc  | attttaactg  | 9120  |
| taactcttatt | gtttattttg  | gttataaaag  | taaacaaagg  | aaaagtaatg  | caacttcaaa  | 9180  |
| ckctacataa  | atatctatta  | tggaaaagtgg | aaggcatcta  | taatcctact  | acccaaagat  | 9240  |
| aaccagttac  | atattcctcc  | agattttttg  | ggcatacact  | agcttttttt  | atltgggaaa  | 9300  |
| atltccatgt  | gcaggcatat  | ctaatttttc  | taaatgtcta  | tgtagtattc  | catttaagga  | 9360  |
| tgttccataa  | tttttaaaat  | acatgcttta  | aagtagagaa  | actaggttgg  | gcatgggtggc | 9420  |
| tcacgcctgt  | atcccagcac  | tttgggaggc  | cgaggcaaat  | ggatcacttg  | agggtccggag | 9480  |
| tttgagacca  | gcctggacaa  | catgatgaaa  | caccctctct  | aataaaaaata | caaaaattag  | 9540  |
| ctgggcatgg  | tggcaagcac  | ctgtagtccc  | agctactcag  | gagtctgagg  | caggagtatc  | 9600  |
| acttgaactc  | aggaggcaga  | agttgcagtg  | agctgagatc  | acgccactgc  | actccagcct  | 9660  |
| aggcgacaaa  | agggaactc   | cgtcttaaaa  | acaaaaacaa  | acaaaaaac   | acaggatgcc  | 9720  |
| cagataaata  | tgactttcag  | ataagcaatg  | gataattttt  | tgggggggat  | atgtcccaaa  | 9780  |
| tattgcattc  | attgtttatc  | tgaaagtcaa  | atttaactgg  | gcatacctgat | gtacttgtat  | 9840  |
| tcacttaatc  | tgtcagccct  | aaatgtgcat  | cagtggaaatg | gctgccagct  | tattccagtt  | 9900  |
| aattcttctt  | gccccagatt  | gtacaaaaca  | gggtccacct  | tggctcagtc  | ctctcctttc  | 9960  |
| atccctctcc  | aggcaaaaac  | aaagagtgtg  | aggccttcat  | ttgcaactgc  | gaccgcaacg  | 10020 |
| ctgccatctg  | cttttcaaaa  | gctccatata  | acaaggcaca  | caagaacctg  | gacaccaaga  | 10080 |
| agtattgtca  | gagttgaata  | tcacctctca  | aaagcatcac  | ctctatctgc  | ctcatctcac  | 10140 |
| actgtactct  | ccaataaagc  | accttggttg  | aagacctcat  | gtttggatat  | tgttttattc  | 10200 |
| tctgtctata  | taactaggct  | ctgcctactc  | ttttattttt  | atgtattttat | tttttctagg  | 10260 |
| tggagtcttg  | ctctgtggcc  | caggctggag  | tgcagtgatg  | ccaccttgcc  | tcactgcaac  | 10320 |
| ctccgcctcc  | cgggctcaag  | caatcctccc  | gcctcatcct  | cccagtagtc  | tgggaccata  | 10380 |
| ggcatgcacc  | accatgcctg  | gctaattttt  | gtattttttg  | tagagacaga  | gtttcgccat  | 10440 |

```

gttgccctgg ctggtctcaa actcctcagc ttaagtgatc tgccctggctc ggcctcgcaa 10500
agtgttggga ttacatgcat gagccgccgc gcctggctac tctgcctagt cttttgtgag 10560
tatcatttct tccagccttg gaagctaagt tgaattagaa agacacttcc aggaagcaag 10620
caagcacctt gaaacctgag taatgattaa cgatcaccat ctactgatta tttactctgt 10680
accaggactg tgtgtccata aatcctcttg acagccctgt gaggtattgg cgctattagc 10740
aaatcttatt ttcctaagct gaggtcfaat aggagagggtc acttttccaa tgctatcatc 10800
tagtaagcag cagagaagga atttgaactc ggcaagtcta acaacagaaa acacatgctg 10860
aaccactgcc cttccctgcc tgaagtggta ggctttagtt tgagccagac cttgcccccg 10920
tctcatgatt ctgcctccat tttcaactgt attaaacat ttttctacaa tgactttctt 10980
tttttttttt ttttttgaga tggagtctcg ctctgtcgcc caggctggag tgcagtgtgt 11040
caatctcggc tcaactgcaag ctctgcctcc cagggttcacg ccattctcct gcctcagctt 11100
cccagtagtc tgggtttaca ggctcctgcc accacgccc gctaattttt tgtattttca 11160
gtagagacgg ggtttcaccc tgtagccag gatggtctcg atctcctgac ctctgtatcc 11220
gcccgcctcg gcctcccaaa gtgctgggat tacaggcggt agccaccgca cagggccacg 11280
actttctttt ctaaataaaa gacttcacca cactctacag gctaattttg acactgtagt 11340
catgaaatat aataaacatt aacaagccga gcatggcggc acgcgcctat gatcgtagct 11400
actcaagagg ctgaggcagg aggatctctt gatcccgga gtttgaggct gcagtgtgct 11460
atgatcacac cactgcactc cagcctgggt gaaagagtga gaccctgttt caagctacta 11520
gggaggctga agtggaagga tcccctgagc ccaggagttg gaggtgtcag tgagctgtga 11580
tcacgccact gcactccagc ctgagtgaac gagagagaca ctatctcaaa caaacacaca 11640
cacaaaacmc aaacaaaaca aaacaaaaca aaacaaaaca aaacaaaaaa ccaataacag 11700
cttgcatctt tggagcactt actgcatact tccttggttc gagttttcca catctcatct 11760
cattaaatgt tcaaaccagc tctgtgatat tgatattttt gctcccattt catggatgtg 11820
gaactaaaaa ttcagagaag ttaagtcatt tgtccaagat cacacaaatg gcaaaatcag 11880
gatttggcca ggtctgtctg gtggcagtg ccaagctttt aaccactaag tcacttcagc 11940
ccaattcctc tatgagtatt tatgactaca tttacattga aattcaccag aactaagcca 12000
gggacagtgg ctacgcctg taatcccagg acttttgagaa gtctaggtgg gcagatcact 12060
tgaggccagg agtttgagac cagcctggcc aacatggcaa aaccctgtct ctactaaaaa 12120
atacaaaaat tagccgagta tgggtggcata ggctgtaat cccaactact cagg 12174

```

<210> 2  
 <211> 148  
 <212> PRT  
 <213> Homo sapiens

```

<400> 2
Met Lys Leu Leu Val Leu Ala Val Leu Leu Thr Val Ala Ala Ala Asp
 1          5          10          15
Ser Gly Ile Ser Pro Arg Ala Val Trp Gln Phe Arg Lys Met Ile Lys
          20          25          30
Cys Val Ile Pro Gly Ser Asp Pro Phe Leu Glu Tyr Asn Asn Tyr Gly
          35          40          45
Cys Tyr Cys Gly Leu Gly Gly Ser Gly Thr Pro Val Asp Glu Leu Asp
          50          55          60
Lys Cys Cys Gln Thr His Asp Asn Cys Tyr Asp Gln Ala Lys Lys Leu
          65          70          75          80
Asp Ser Cys Lys Phe Leu Leu Asp Asn Pro Tyr Thr His Thr Tyr Ser
          85          90          95
Tyr Ser Cys Ser Gly Ser Ala Ile Thr Cys Ser Ser Lys Asn Lys Glu
          100          105          110
Cys Glu Ala Phe Ile Cys Asn Cys Asp Arg Asn Ala Ala Ile Cys Phe
          115          120          125
Ser Lys Ala Pro Tyr Asn Lys Ala His Lys Asn Leu Asp Thr Lys Lys
          130          135          140
Tyr Cys Gln Ser
145

```

<210> 3  
 <211> 562  
 <212> DNA  
 <213> Homo sapiens

```

<400> 3
tgggtcatctc agttttctttt ctcaccttga ctgcaagatg aaactccttg tgctagctgt 60
gctgctcaca gtggccgcgcg, ccgacagcgg catcagccct cgggcccgtgt ggcagttccg 120
caaaatgatac aagtgcgtga tccccggggag tgaccccttc ttggaatata acaactacgg 180
ctgctactgt ggcttggggg gctcaggcac ccccggtgat gaactggaca agtgctgcca 240
gacacatgac aactgctatg accaggccaa gaagctggac agctgtaaat ttctgctgga 300
caaccgctac acccacacct attcatactc gtgctctggc tcggcaatca cctgtagcag 360
caaaaacaaa gagtgtgagg ccttcatttg caactgcgac cgcaacgctg ccatctgctt 420
ttcaaaagct ccatataaca aggcacacaa gaacctggac accaagaagt attgtcagag 480
ttgaatatca cctctcaaaa gcatcacctc tatctgcctc atctcacact gtactctcca 540
ataaagcacc ttgttgaaag aa 562

```

```

<210> 4
<211> 552
<212> DNA
<213> Mouse

```

```

<400> 4
ctccctcac tccttctgaa gatgaaactc cttctgctgg ctgctctgct cacagcaggc 60
gctgctgcac acagcatcag ccctcgggct gtgtggcagt tccgcaatat gatcaagtgc 120
accatccccg ggagtgatcc cctgaaggat tacaacaact atggctgcta ctgtggcttg 180
ggcggctggg gcaccccagt ggacgactta gacagggtgct gccagactca tgaccactgc 240
tacagtcagg ccaagaagct ggaaagctgt aaattcctca tagacaaccc ctacaccaac 300
acttactcct actcatgctc cgggagcgag atcacctgca gcgcaaaaaa caacaaatgc 360
gaggacttca tctgcaactg tgaccgtgag gccgccatct gcttctccaa ggtcccgtac 420
aacaaggaat acaaaaacct tgacaccggg aaattctgtt agcctgtcac ctcaacttct 480
gcccacgccg accccgcccc ccttgctgtc ttatttcacc ctgcgcctc taataaagta 540
cctgctgtca ga 552

```

```

<210> 5
<211> 542
<212> DNA
<213> rat

```

```

<400> 5
ccctcgccaa gatgaaactc cttctgctgg ctgctttgct cacagcaggc gttactgcac 60
acagcatcag cactcgggct gtgtggcagt tccgcaatat gatcaagtgc accatccccg 120
ggagtgatcc cctgagggag tacaacaact acggctgcta ctgtggcttg ggcggctcag 180
gcaccccagt ggacgactta gacagggtgct gccagactca tgaccactgc tacaatcagg 240
ccaagaagct ggaaagctgt aaattcctca tcgacaaccc ctacaccaac acgtactcat 300
acaagtgtc cgggaacgtg atcacctgca gcgcaaaaaa caacgactgt gagagcttca 360
tctgcaactg tgaccggcag gccgccatct gtttctccaa ggtcccctac aacaaggaat 420
acaaagacct tgacaccaag aaacactgtt aggtgtcac ccacttct gtctatgccg 480
tccccgtcc ccttgctgtc ttatttctgc accgcacct ctaataaagt accagcagaa 540
ag 542

```

```

<210> 6
<211> 289
<212> DNA
<213> P. obesus

```

```

<220>
<221> misc_feature
<222> 269
<223> n = A,T,C or G

```

```

<400> 6
tgttccgcaa tatgatcaag tgcgccatcc ccggaagtaa gcccctgaag gagtacaaca 60
actacggctg ctactgcggc ctgggcggcg caggcacccc agtggacgaa ttagacaggt 120
gctgccagat ccactgacaat tgctacacta aggccaaagag gctgaaaagc tgtaaatccc 180
tcctggacaa cccctacacc cactcatact cgtacaagtg ctccgggaat gagatcatct 240
gtagtgacaa aaacaaggaa tgcgaggcnt tcactgtcaa ctgtgaccg 289

```

<210> 7  
 <211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 7  
 Met Lys Leu Leu Val Leu Ala Val Leu Leu Thr Val Ala Ala Ala Asp  
 1 5 10 15  
 Ser Gly Ile Ser Pro Arg Ala Val Trp Gln Phe Arg Lys Met Ile Lys  
 20 25 30  
 Cys Val Ile Pro Gly Ser Asp Pro Phe Leu Glu Tyr Asn Asn Tyr Gly  
 35 40 45  
 Cys Tyr Cys Gly Leu Gly Gly Ser Gly Thr Pro Val Asp Glu Leu Asp  
 50 55 60  
 Lys Cys Cys Gln Thr His Asp Asn Cys Tyr Asp Gln Ala Lys Lys Leu  
 65 70 75 80  
 Asp Ser Cys Lys Phe Leu Leu Asp Asn Pro Tyr Thr His Thr Tyr Ser  
 85 90 95  
 Tyr Ser Cys Ser Gly Ser Ala Ile Thr Cys Ser Ser Lys Asn Lys Glu  
 100 105 110  
 Cys Glu Ala Phe Ile Cys Asn Cys Asp Arg Asn Ala Ala Ile Cys Phe  
 115 120 125  
 Ser Lys Ala Pro Tyr Asn Lys Ala His Lys Asn Leu Asp Thr Lys Lys  
 130 135 140  
 Tyr Cys Gln Ser  
 145

<210> 8  
 <211> 146  
 <212> PRT  
 <213> Mouse

<400> 8  
 Met Lys Leu Leu Leu Leu Ala Ala Leu Leu Thr Ala Gly Ala Ala Ala  
 1 5 10 15  
 His Ser Ile Ser Pro Arg Ala Val Trp Gln Phe Arg Asn Met Ile Lys  
 20 25 30  
 Cys Thr Ile Pro Gly Ser Asp Pro Leu Lys Asp Tyr Asn Asn Tyr Gly  
 35 40 45  
 Cys Tyr Cys Gly Leu Gly Gly Trp Gly Thr Pro Val Asp Asp Leu Asp  
 50 55 60  
 Arg Cys Cys Gln Thr His Asp His Cys Tyr Ser Gln Ala Lys Lys Leu  
 65 70 75 80  
 Glu Ser Cys Lys Phe Leu Ile Asp Asn Pro Tyr Thr Asn Thr Tyr Ser  
 85 90 95  
 Tyr Ser Cys Ser Gly Ser Glu Ile Thr Cys Ser Ala Lys Asn Asn Lys  
 100 105 110  
 Cys Glu Asp Phe Ile Cys Asn Cys Asp Arg Glu Ala Ala Ile Cys Phe  
 115 120 125  
 Ser Lys Val Pro Tyr Asn Lys Glu Tyr Lys Asn Leu Asp Thr Gly Lys  
 130 135 140  
 Phe Cys  
 145

<210> 9  
 <211> 146  
 <212> PRT  
 <213> rat

<400> 9  
 Met Lys Leu Leu Leu Leu Ala Ala Leu Leu Thr Ala Gly Val Thr Ala  
 1 5 10 15

His Ser Ile Ser Thr Arg Ala Val Trp Gln Phe Arg Asn Met Ile Lys  
                   20                                  25                                  30  
 Cys Thr Ile Pro Gly Ser Asp Pro Leu Arg Glu Tyr Asn Asn Tyr Gly  
                   35                                  40                                  45  
 Cys Tyr Cys Gly Leu Gly Gly Ser Gly Thr Pro Val Asp Asp Leu Asp  
                   50                                  55                                  60  
 Arg Cys Cys Gln Thr His Asp His Cys Tyr Asn Gln Ala Lys Lys Leu  
 65                                  70                                  75                                  80  
 Glu Ser Cys Lys Phe Leu Ile Asp Asn Pro Tyr Thr Asn Thr Tyr Ser  
                                   85                                  90                                  95  
 Tyr Lys Cys Ser Gly Asn Val Ile Thr Cys Ser Asp Lys Asn Asn Asp  
                                   100                                  105                                  110  
 Cys Glu Ser Phe Ile Cys Asn Cys Asp Arg Gln Ala Ala Ile Cys Phe  
                   115                                  120                                  125  
 Ser Lys Val Pro Tyr Asn Lys Glu Tyr Lys Asp Leu Asp Thr Lys Lys  
                   130                                  135                                  140  
 His Cys  
 145

<210> 10  
 <211> 146  
 <212> PRT  
 <213> P. obesus

<400> 10  
 Met Lys Leu Leu Leu Leu Ala Ala Leu Leu Thr Ala Gly Val Gly Ala  
 1                                  5                                  10                                  15  
 His Ser Ile Ser Thr Arg Ala Val Trp Gln Phe Gly Asn Met Ile Lys  
                   20                                  25                                  30  
 Cys Ala Ile Pro Gly Ser Lys Pro Leu Lys Glu Tyr Asn Asn Tyr Gly  
                   35                                  40                                  45  
 Cys Tyr Cys Gly Leu Gly Gly Ala Gly Thr Pro Val Asp Glu Leu Asp  
                   50                                  55                                  60  
 Arg Cys Cys Gln Ile His Asp Asn Cys Tyr Thr Lys Ala Lys Arg Leu  
 65                                  70                                  75                                  80  
 Lys Ser Cys Lys Ser Leu Leu Asp Asn Pro Tyr Thr His Ser Tyr Ser  
                                   85                                  90                                  95  
 Tyr Lys Cys Ser Gly Asn Glu Ile Ile Cys Ser Asp Lys Asn Lys Glu  
                                   100                                  105                                  110  
 Cys Glu Ala Phe Ile Cys Asn Cys Asp Arg Ala Ala Ala Ile Cys Phe  
                   115                                  120                                  125  
 Ser Lys Ala Pro Tyr Asn Lys Glu Asp Lys Asn Leu Asn Thr Lys Lys  
                   130                                  135                                  140  
 Asn Cys  
 145

<210> 11  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 11  
 tgcagaggct caatcactgt

20

<210> 12  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence



<220>  
 <223> primer  
  
 <400> 12  
 caggtgtggt ggtggattg 19  
  
 <210> 13  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 13  
 cacaggccac agcaaacag 19  
  
 <210> 14  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 14  
 tcagacttgc aggttgaaaa ag 22  
  
 <210> 15  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 15  
 ggcagaccga tttgaactct 20  
  
 <210> 16  
 <211> 17  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 16  
 cgggatcacg cacttga 17  
  
 <210> 17  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 17  
 ggcagttccg caaaatgat 19  
  
 <210> 18  
 <211> 20  
 <212> DNA

<213> Artificial Sequence

<220>  
<223> primer

<400> 18  
tgcaggcgga tcacttactt 20

<210> 19  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 19  
agctgtccct cccactttc 19

<210> 20  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 20  
gtgtgggtgt acgggttgt 19

<210> 21  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 21  
agctgtccct cccactttc 19

<210> 22  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 22  
ataggtcaag gaaggataa ac 22

<210> 23  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 23  
agctgtccct cccactttc 19

<210> 24

<211> 22  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 24  
 ataggtcaag gaagggataa ac 22  
  
 <210> 25  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 25  
 caagaagctg gacagctgta 20  
  
 <210> 26  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 26  
 ataggtcaag gaagggataa ac 22  
  
 <210> 27  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 27  
 atcacctcaa cctccgttca 20  
  
 <210> 28  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 28  
 ggtggtgcac gcttgtaatt 20  
  
 <210> 29  
 <211> 26  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 29  
 aaggtaaagca gagatacgta aattat 26

<210> 30  
 <211> 26  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 30  
 ggttatcttt gggtagtagg attata 26  
  
 <210> 31  
 <211> 16  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> extension oligonucleotide  
  
 <400> 31  
 tgagatggga ggatct 16  
  
 <210> 32  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> extension oligonucleotide  
  
 <400> 32  
 actgggaacc tcga 14  
  
 <210> 33  
 <211> 13  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> extension oligonucleotide  
  
 <400> 33  
 gctgatgccg ctg 13  
  
 <210> 34  
 <211> 13  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> extension oligonucleotide  
  
 <400> 34  
 ggagtgaccc ctt 13  
  
 <210> 35  
 <211> 17  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> extension oligonucleotide

|  |    |
|--|----|
| <400> 35<br>acacatgaca actgcta                                 | 17 |
|  |    |
| <210> 36<br><211> 15<br><212> DNA<br><213> Artificial Sequence |    |
|  |    |
| <220><br><223> extension oligonucleotide                       |    |
|  |    |
| <400> 36<br>ggtgtgggtg tacgg                                   | 15 |
|  |    |
| <210> 37<br><211> 15<br><212> DNA<br><213> Artificial Sequence |    |
|  |    |
| <220><br><223> extension oligonucleotide                       |    |
|  |    |
| <400> 37<br>ggtgtgggtg tacgg                                   | 15 |
|  |    |
| <210> 38<br><211> 18<br><212> DNA<br><213> Artificial Sequence |    |
|  |    |
| <220><br><223> extension oligonucleotide                       |    |
|  |    |
| <400> 38<br>ccacacctat tcatactc                                | 18 |
|  |    |
| <210> 39<br><211> 16<br><212> DNA<br><213> Artificial Sequence |    |
|  |    |
| <220><br><223> extension oligonucleotide                       |    |
|  |    |
| <400> 39<br>cttaggcagg agaatc                                  | 16 |
|  |    |
| <210> 40<br><211> 17<br><212> DNA<br><213> Artificial Sequence |    |
|  |    |
| <220><br><223> extension oligonucleotide                       |    |
|  |    |
| <400> 40<br>gtaatgcaac ttcaaac                                 | 17 |
|  |    |
| <210> 41<br><211> 20<br><212> DNA<br><213> Artificial Sequence |    |
|  |    |
| <220>  |    |

<223> primer

<400> 41  
accacttag catccttcag 20

<210> 42  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 42  
tcttatgtgg gttccttggg 20

<210> 43  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 43  
tgtggccatt gtgactgaga 20

<210> 44  
<211> 17  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 44  
gcccgggtga cagagtg 17

<210> 45  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 45  
tgtggcagtt ccgcaaaatg 20

<210> 46  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> extension oligonucleotide

<400> 46  
agtagcagcc gtagttgttg 20

<210> 47  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
 <223> primer

<400> 47  
 accccgttag agatggaaac 20

<210> 48  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 48  
 ctggtgctac attctgccac 20

<210> 49  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 49  
 aatttctgct ggacaacccg 20

<210> 50  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 50  
 cctactgcta caggtgattg 20

<210> 51  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 51  
 caagccaaaa gtaatgcaac 20

<210> 52  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 52  
 ggattataga tgccttccac 20

<210> 53  
 <211> 20

<212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 53  
 tcatctcaca ctgtactctc 20  
  
 <210> 54  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 54  
 caatatccaa acatgaggtc 20  
  
 <210> 55  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 55  
 gacagagaga gacactatct 20  
  
 <210> 56  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 56  
 gaaatgcaag ctggtattgg 20  
  
 <210> 57  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> ddNTPs  
  
 <400> 57  
 ttagcatcct tcaggcctaa a 21  
  
 <210> 58  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> ddNTPs  
  
 <400> 58  
 gactctgcct caaaataaat aaaa 24



<210> 59  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> ddNTPs

<400> 59  
gccgtagttg ttgtattcca a

21

<210> 60  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> ddNTPs

<400> 60  
gtgcaaaaca gtgggcatg ct

22

<210> 61  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> ddNTPs

<400> 61  
tgattgccga gccagagca

19

<210> 62  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> ddNTPs

<400> 62  
tgattgccga gccagagca

19

<210> 63  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> ddNTPs

<400> 63  
cactgtactc tccaataaag cacc

24

<210> 64  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> ddNTPs

<400> 64

|                                     |    |
|-------------------------------------|----|
| caaacaaaca cacacacaaa ac            | 22 |
| <br>                                |    |
| <210> 65                            |    |
| <211> 32                            |    |
| <212> DNA                           |    |
| <213> Artificial Sequence           |    |
| <br>                                |    |
| <220>                               |    |
| <223> primer                        |    |
| <br>                                |    |
| <400> 65                            |    |
| acgttggatg gggttgtcca gcagaaattt ac | 32 |
| <br>                                |    |
| <210> 66                            |    |
| <211> 28                            |    |
| <212> DNA                           |    |
| <213> Artificial Sequence           |    |
| <br>                                |    |
| <220>                               |    |
| <223> primer                        |    |
| <br>                                |    |
| <400> 66                            |    |
| acgttggatg ctttccaggt gctgccag      | 28 |
| <br>                                |    |
| <210> 67                            |    |
| <211> 19                            |    |
| <212> DNA                           |    |
| <213> Artificial Sequence           |    |
| <br>                                |    |
| <220>                               |    |
| <223> primer                        |    |
| <br>                                |    |
| <400> 67                            |    |
| agacacatga caactgcta                | 19 |
| <br>                                |    |
| <210> 68                            |    |
| <211> 20                            |    |
| <212> DNA                           |    |
| <213> Artificial Sequence           |    |
| <br>                                |    |
| <220>                               |    |
| <223> primer                        |    |
| <br>                                |    |
| <400> 68                            |    |
| gctgtgtggc agttccgcaa               | 20 |
| <br>                                |    |
| <210> 69                            |    |
| <211> 22                            |    |
| <212> DNA                           |    |
| <213> Artificial Sequence           |    |
| <br>                                |    |
| <220>                               |    |
| <223> primer                        |    |
| <br>                                |    |
| <400> 69                            |    |
| gttccgcaat atgatcaagt gc            | 22 |
| <br>                                |    |
| <210> 70                            |    |
| <211> 23                            |    |
| <212> DNA                           |    |
| <213> Artificial Sequence           |    |
| <br>                                |    |
| <220>                               |    |
| <223> primer                        |    |

|  |    |
|--|----|
| <400> 70<br>gatgaaactc cttctgctgg ctg                          | 23 |
| <210> 71<br><211> 22<br><212> DNA<br><213> Artificial Sequence |    |
| <220><br><223> primer  |    |
| <221> misc_feature<br><222> 1<br><223> s = C or G              |    |
| <400> 71<br>saagatgaaa ctccttctgc tg                           | 22 |
| <210> 72<br><211> 20<br><212> DNA<br><213> Artificial Sequence |    |
| <220><br><223> primer  |    |
| <400> 72<br>ggtgaaataa gacagcaagg                              | 20 |
| <210> 73<br><211> 20<br><212> DNA<br><213> Artificial Sequence |    |
| <220><br><223> primer  |    |
| <221> misc_feature<br><222> 7<br><223> n = A,T,C or G          |    |
| <400> 73<br>ggagaancag atggcggcct                              | 20 |
| <210> 74<br><211> 21<br><212> DNA<br><213> Artificial Sequence |    |
| <220><br><223> primer  |    |
| <400> 74<br>cggtcacagt tgcagatgaa g                            | 21 |
| <210> 75<br><211> 23<br><212> DNA<br><213> Artificial Sequence |    |
| <220><br><223> primer  |    |

<400> 75  
ggaagtgggg tgacagccta aca

23

<210> 76  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<221> misc\_feature  
<222> 18  
<223> n = A,T,C or G

<221> misc\_feature  
<222> 17  
<223> w = A or T

<221> misc\_feature  
<222> 9  
<223> s = C or G

<400> 76  
ggtgacagsc taacagwnntt tc

22

<210> 77  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 77  
gcacccagtg ggacgaatt

19

<210> 78  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 78  
tcagcctctt ggccttagtg tag

23